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APR 10 2008

REMARKS

Claims 1-30 are pending in the instant application.

All claims stand rejected under §101 as lacking practical application.

All claims stand rejected as obvious in view of the combination of Mimatsu, US Patent Publication 2004/0111485 and Kodama, US Patent Publication 2003/0115433.

Applicants herein add Claims 31 and 32.

All amendments are made independently of the cited art. No amendment is made in view of the cited art.

35 USC §101, Lack of Practical Application

Applicants respectfully request that the Examiner cite the law, regulation or MPEP section supporting the rejection of the claims for "lack[ing] practical application." The Examiner cites §101, but §101 does not use the phrase "practical application." The Examiner does not cite a 37 CFR section or an MPEP paragraph to justify making "lack [of] practical application" the standard for accepting or rejecting claims. With the more particular recitation of the controlling law, regulation, etc., Applicants can provide a more particular response, taking into account the actual wording of the controlling law, its rationales and other related considerations.

However, in order to expedite the prosecution of the application, Applicants assume the Office Action relies on MPEP §§2106 and 2107 and therefore argue that the claims have clear practical application. Applicants submit that the preparation that the claims perform is analogous to preparing to fight fires by establishing a firehouse. One could, of course, wait until a fire actually occurs to build the firehouse, hire firemen and bring in a fire engine, arguing that to establish relationships among the firehouse, the firemen and fire-fighting appliances has no practical application. Others would say that to wait is to err fatally. Applicants submit that establishing a firehouse is a practical thing to do.

Similarly, preparing to copy data, using the cross-reference is a practical thing to do. It allows one to provide copies in the event of a disaster, for example. If one waits for the disaster to happen first, the delay may be fatal.

Applicants have explained why the invention is believed useful. The disclosure contains an indication of the practical application for the claimed invention, i.e., why Applicants believe the claimed invention is useful. The disclosure explains the purpose of the invention and how the

invention may be used. The disclosure enables one ordinarily skilled in the art to understand why the applicant believes the claimed invention is useful. Cf. MPEP §2106 II A.

Further, the claims define statutory subject matter (i.e., processes, machines and manufactures).

The utility of the claimed invention is well established. A person of ordinary skill in the art would immediately appreciate why the invention is useful based on the characteristics of the invention. The utility is specific, substantial, and credible.

Applicants have asserted for the claimed invention specific and substantial utility that is credible. Applicants have asserted that the claimed invention is useful for a particular practical purpose, and the assertion is considered credible by a person of ordinary skill in the art.

Under these circumstances, the MPEP advises against imposing a rejection based on lack of utility. MPEP §2107

While Applicants do not believe a prima facie case for lack of utility has been set forth, see MPEP §2107, Applicants nonetheless have responded in order to expedite prosecution.

Again in order to expedite prosecution, Applicants add Claims 31 and 32 that recite recovery limitations. Applicants would appreciate any suggestions for claim language that the Examiner believes is appropriate in light of the foregoing explanation.

Claimed Invention Distinguished from Mimatsu and Kodama

Kodama, US Patent Publication 2003/0115433, teaches a storage system including local and remote storage. Data written to a storage area is assigned a priority. Remote copy messages with higher priorities are sent before those with lower priorities.

Mimatsu, US Patent Publication 2004/0111485, intermixed, diverse storage devices. A device that provides a common interface manages the relationship between storage recognized by a host and storage on a storage device.

As cited in the Office Action, Mimatsu and Kodama do not "*pair[] first and second storage devices*" as recited in all of the claims.

The Office Action proposes that LUNs 3103 and WWNs 3102 in the disk volume management table (DVMT) 1312 of the virtualization server 1301 form the recited hardware addresses, first device identifiers and cross-referencings. The Office Action also proposes that pairing of virtual volumes 1 and 2 in ¶0057 form the recited pairings of storage devices. However,

the ¶0057 pairings are of virtual volumes while the DVMT LUNs 3103 and WWNs 3102 deal with physical volumes. The ¶0057 pairings are not pairings of the storage devices used in the DVMT 1312.

Indeed, Mimatsu stresses that physical-disk-volume management and virtual-disk-volume management are dissimilar. "A disk volume is managed using the disk volume management table 1312 having the configuration shown in FIG. 3 unlike a virtual volume." ¶0051.

As cited in the Office Action, Mimatsu and Kodama do not *"add[a] pair, by information other than first device identifiers, to a copy group already containing another storage-device pair"* as recited in all of the claims.

The Office Action proposes the pair table 600 as the copy group and ¶0066 as teaching the recited addition of a storage-device pair to the pair table 600. Yet ¶0066 merely describes the structure of a static pair table 600. It does not teach modification of a pair table 600 — let alone the addition of pairs.

As cited in the Office Action, Mimatsu and Kodama do not *"identify[] the copy group"* or *"cross-referenc[e] the copy-group identifier and the first device identifiers of the pair"* as recited in all of the claims.

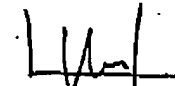
The Office Action proposes that there are references to the pair table 600 *per se* in subsequent tables. Subsequent figures refer to disk pairs but not to the identity of pair tables *per se*. Where cited, Kodama does not identify pair tables or cross-reference a pair table so identified.

As cited in the Office Action, Mimatsu and Kodama do not teach or suggest all of the limitations of Claim 1.

CONCLUSION

Applicants amend the application and request reconsideration in view of the discussion set forth above.

Respectfully submitted,

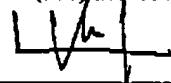


Larry Mendenhall
Reg. No. 38,555
601 California St., Suite 1111
San Francisco, CA 94108-2805
Telephone: (415) 989-8080
Facsimile: (415) 989-0910

Enc. Claim Amendments

Certificate of Transmission

I certify that this Response to Office Action and any following materials are being transmitted by facsimile on April 10, 2008 to the U.S. Patent and Trademark Office at telephone number (571) 273-8300.



Larry Mendenhall